QUALITY INTO QUANTITY? THE NEED FOR NEW INDICATORS IN COMPARING ECONOMIC GROWTH

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For better or for worse, recent developments have tended to shift the international comparison of economic growth from the leisurely deliberation by social scientists to the hectic arena of international politics. The drive for economic development in uncommitted countries has been made a prime object of contention in the present era of "competitive coexistence." The Soviet challenge has recently been extended to the capitalist world by setting up the rate of growth as a measure of performance in a test of the comparative efficiency of economic and political systems. For their own part, the industrial countries of the West have become more sensitive to full employment and economic growth, not just as an underpinning of military strength or political power, but as a deliberate goal of national policy in its own right.

As a result, calls for comparisons of strength and rates of progress have become more frequent, and the lack of reasonably unambiguous answers more painful to those concerned with the policy implications of growth problems. In our current research project on the "Economics of Competitive Coexistence" at the National Planning Association, the need to compare growth trends and immediately to hedge the evaluation with numerous qualifications is a persistent companion. What is at stake is the insufficiency of our traditional aggregative measures of growth as a base for quantitative prediction, extrapolation, or mere evaluation—in descending order of ambitiousness.

Let me use the controversial field of Russian economic growth as an example. High Soviet claims have set up an inviting target to shoot at, and there has been plenty of sniping. We know the statistical pitfalls and we have witnessed some spectacular feats of gymnastics in attack and defense. But the pitfalls are not all statistical. Just as critical, and harder to define, are the limits of inference from growth aggregates. If growth rates have been similar over one period, what follows for the future? If growth rates have differed, will they tend to pull further apart or converge

later? Do higher rates imply greater strength or more welfare? Do similar rates mean equal potentialities, and if so, for what?

At this point qualitative evaluation takes over, as it must eventually in all economic analysis. But economics is a quantitative science, at least conceptually, and the economist should be ever alive to opportunities of translating qualitative factors into quantitative notions for better integration within our traditional frame of reference. The difficulty of interdisciplinary research is only in part one of language; in fraternizing with the other sciences, the economist sometimes neglects to assimilate as much as possible the noneconomic factors with his own concepts.

A concrete example may help to make my point. In the fifties some Western countries grew probably about as fast as the Soviet Union. To some observers this serves as a consolation in the competitive struggle, an indication that planned economies do not necessarily or systematically grow faster than market economies. Implicitly, they extrapolate parallel growth trends, in contrast to those who imply a steeper slope of growth curves for the centrally directed system. The underlying institutional difference is thus recognized as a potential governing factor, but it is not made explicit in the absence of quantitative characteristics that could be weighed along with the growth statistics.

As a substitute, "types" or "stages" of growth have been submitted as ordinal categories of distinction. The technique of typology, so much in line with German historical tradition, has again been applied to economic growth by economists such as Hoffmann and Baerwald. Rostow's concept of the "take-off" is probably the latest and most lively application of the "stage" technique. Both classifications have the drawback of imprecise or arbitrary demarcation, which makes them hard to apply to practical situations and may well fail to do justice to borderline cases of special interest in dynamic situations.

I submit that it would be worth trying to circumscribe some institutional and other nonquantitative criteria in a more flexible manner. It has been found practical to circumscribe such a complex concept as the level of living by a number of indicators derived from diverse fields like vital statistics, health, caloric intake, housing, education, etc. While none of them is singly a satisfactory measure, in their totality they succeed in giving a useful composite picture that, in a modest way, is better than the sum of its parts. Why should it not be possible to devise a fair number of judiciously selected indicators that add up to an approximation of various qualitative characteristics, which could help in evaluating factors governing the inference from statistical growth trends?

For instance, in my earlier example the hunch that a centrally directed economy might have a more systematic tendency toward sustained growth than a *laissez faire* economy of the classic type may well be sound. However, given a similar growth-oriented policy, a not centrally planned economy—e.g. one operating through different, incentive-directed institutions—might conceivably achieve comparable sustained rates of growth.

On this assumption, indicators of "deliberateness" might be devised that feature ratios (such as income-investment ratios, etc.) and institutional factors (such as growth of development-oriented intermediaries, measures of incentive-generated results, growth-characteristic structural shifts, etc.). The only reason why these indicators of "deliberateness" have not been called indicators of planning is to avoid a too narrow interpretation of the word; but the progressing efficacy of techniques of projection (on which the National Planning Association keeps working continuously) and of policy implementation might, in turn, with time become the object of subindicators.

I would like to point to just one more field of application that is related to the preceding theme of institutional development, one that is deliberately removed from the direction of resources frequently and unjustly indentified with the notion of planning. On two previous occasions,[1] I analyzed the stifling effect of uncertainty and ignorance due to lack of the experience and information that would reduce the pioneer's risk to manageable proportions. This implies a need for policies designed to reduce both the factual risks and the personal sense of uncertainty of would-be entrepreneurs. The growth of counseling or promotional institutions and a picture of broadening entrepreneurship might well be expressed in a number of indicators—of varying comprehensiveness and quality, to be sure, but nonetheless approximations of factors so far deemed totally beyond the pale of quantitative evaluation. Economic historians have often had to make do with less, and where growth consciousness is increasing, a measure of curiosity and inventiveness on the part of growth economists may hope to unearth unexpected sources of information—or with time promote them as a matter of deliberate policy.

These are random examples jotted down at the shortest of notice. They are intended only as pointers to a somewhat novel approach and, I believe, to uses to which a purposeful search for new methods might profitably be directed. I am unable to anticipate at this time the full scope of such usefulness, while it is all too easy to point to the much more obvious difficulties and obstacles. Yet I submit that an organized effort involving some hard thinking and much backbreaking research and subsequent testing is bound to yield some results. They could hardly fail to build a bridge—wide or narrow, as the case might be—between the traditional aggregate statistics and the intuitive interpretation on which the economist invariably has to fall back when his facilities for rationalization have been exhausted.

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[1] See Henry G. Aubrey, "Investment Decisions in Underdeveloped Countries" in *Capital Formation and Economic Growth,* Princeton for National Bureau of Economic Research, 1955, and *idem,* "Industrial Investment Decisions: A Comparative Analysis," *Journal of Economic History,* December 1955.